CAS 107-13-1

Substance name Acrylonitrile

Toxicity

Acrylonitrile is classified as a carcinogen by authorative sources.[1-5] Long term studies in laboratory animals have shown cancers of the digestive tract, mammary gland, and the central nervous system.[2,4] Occupational studies have shown excesses of lung and prosate cancers as well as other sites in humans.[2]

Exposure

Acrylonitrile is an important industrial chemical intermediate. It is used extensively in the manufacture of synthetic fibers (e.g. acrylic fibers). It is also used in copolymer plastics (e.g., ABS and SAN) for a variety of consumer goods such dinnerware, food containers, toys, luggage, and small appliances.[2,4] It is used in the manufacture of children's products but we were unable to locate any testing data for end use products covered by CSPA.

References

1. WHO International Agency for Research on Cancer. IARC Monograph on the Evaluation of Carcinogenic Risks to Humans, Volume 71, Re-evaluation of Some Organic Chemicals, Hydrazine and Hydrogen Peroxide. 1999. http://monographs.iarc.fr/ENG/Monographs/vol71/index.php.
2. U.S. DHHS, PHS, National Toxicology Program. Report on Carcinogens, Eleventh Edition. 2005.
3. U.S. EPA Integrated Risk Information System (IRIS) for Acrylonitrile (last revised 1993). http://www.epa.gov/iris/subst/0206.htm.
4. European Commission, Joint Research Centre. European Risk Assessment Report: Acrylonitrile, 2004. http://ecb.jrc.ec.europa.eu/DOCUMENTS/Existing-Chemicals/RISK_ASSESSMENT/REPORT/acrylonitrilereport029.pdf.
5. California Office of Environmental Health Hazard Assessment. List of Chemicals Known to the State to Cause Cancer or Reproductive Toxicity. Feb 5, 2010.